

1 1. A coil spring assembly comprising, a plurality of strands configured as a multi-strand
2 cord, the multi-strand cord coiled into a first helical spring having four or more active coils, at
3 least one inactive coil forming a closed end, and a free length of at least about four inches.

1 2. The coil spring assembly of claim 1, wherein the plurality of strands are twisted together.

1 3. The coil spring assembly of claim 1, wherein the plurality of strands are braided together.

1 4. The coil spring assembly of claim 1, wherein the plurality of strands consists of two
2 strands twisted together into the multi-strand cord.

1 5. The coil spring assembly of claim 1, wherein the plurality of strands consists of three
2 strands twisted together into the multi-strand cord.

1 6. The coil spring assembly of claim 1, wherein the plurality of strands consists of three or
2 more strands twisted into the multi-strand cord.

1 7. The coil spring assembly of claim 1, wherein the plurality of strands consists of three
2 strands braided into the multi-strand cord.

1 8. The coil spring assembly of claim 1, wherein the plurality of strands consists of three or
2 more than three strands braided into the multi-strand cord.

1 9. The coil spring assembly of claim 1, wherein the plurality of strands all are formed from
2 the same material.

1 10. The coil spring assembly of claim 1, wherein at least one of the plurality of strands are
2 formed from a different material than at least one other of the plurality of strands.

1 11. The coil spring assembly of claim 1, wherein at least one of the plurality of strands has a
2 plurality of segments, at least one of the segments being formed from a different material than at
3 least one other of the plurality of segments.

1 12. The coil spring assembly of claim 1, wherein the multi-strand cord has a plurality of

2 segments, at least one of the segments being formed from a different material than at least one
3 other of the plurality of segments to provide a variable spring rate.

1 13. The coil spring assembly of claim 1, wherein the multi-strand cord has a coating.

1 14. The coil spring assembly of claim 13, wherein the coating includes a sealant.

1 15. The coil spring assembly of claim 13, wherein the coating includes a plastic.

1 16. The coil spring assembly of claim 13, wherein the coating includes an epoxy.

1 17. The coil spring assembly of claim 1, wherein at least one of the plurality of strands
2 includes an anodizing surface treatment.

1 18. The coil spring assembly of claim 1, wherein at least one of the plurality of strands
2 includes a plastic coating.

1 19. The coil spring assembly of claim 1, wherein the plurality of strands are fastened
2 together at least at one end of the multi-strand cord.

1 20. The coil spring assembly of claim 1, wherein the plurality of strands are fastened
2 together at a plurality of locations along the multi-strand cord.

1 21. The coil spring assembly of claim 1 comprising, an encasing material formed around the
2 first helical spring.

1 22. The coil spring assembly of claim 1, where the plurality of strands all have
2 approximately equal outside diameters.

1 23. The coil spring assembly of claim 1, wherein at least one of the plurality of strands has
2 an outside diameter different from that of at least one other of the plurality of strands.

1 24. The coil spring assembly of claim 1, wherein all of the active coils have approximately
2 equal outside diameters.

1 25. The coil spring assembly of claim 1, wherein at least one of the active coils has an
2 outside diameter different from that of at least one other of the active coils.

1 26. The coil spring assembly of claim 1, wherein the active coils each have an associated
2 outside diameter and the outside diameter of each subsequent one of the active coils is less than
3 the outside diameter of each prior one of the active coils progressing from a first terminal end of
4 the first helical spring to a second terminal end of the first helical spring.

1 27. The coil spring assembly of claim 1, wherein at least a first of the active coils is located
2 near a first terminal end of the first helical spring and at least a second of the active coils is
3 located near a second end of the terminal end, and the first and second active coils each have an
4 outside diameter larger than at least one of the active coils located intermediate to the first and
5 second active coils.

1 28. The coil spring assembly of claim 1, wherein the active coils have approximately equal
2 pitch.

1 29. The coil spring assembly of claim 1, wherein a pitch between first and second ones of
2 the active coils is different from a pitch between second and third ones of the active coils.

1 30. The coil spring assembly of claim 1 comprising, a second helical spring located
2 concentrically inside the first helical spring.

1 31. The coil spring assembly of claim 30, wherein the second helical spring is formed from
2 a multi-strand cord.

1 32. The coil spring assembly of claim 31, wherein the multi-strand cord of the first helical
2 spring and the multi-strand cord of the second helical spring attach at at least one terminal end.